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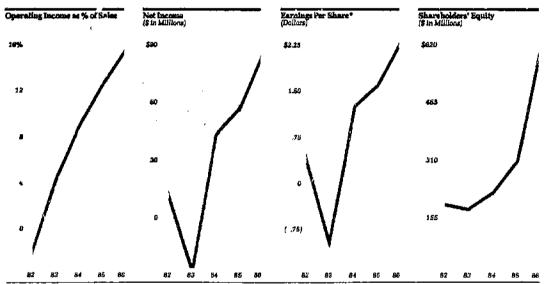
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Average and 66% of the Standard and Poor's 200 ludge over the same parts.

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(Thousands of Dollars, Except Per Share Amounts)	198	8	1985		1984
Net Sales	\$763,774	1 \$'	731,962	\$	731,314
Income Before Extraordinary Credits	\$ 80,68	3 \$	54,296	\$	41,046
Net Income	\$293,16	\$	77,581	\$	56,702
Earnings Per Common Share* Fully Diluted:					
Before Extraordinary Credits	\$ 2.2	2 \$	1.50	\$	1.15
Net Income	0.8	7	2.15		1.59
Cash Dividends Per Common Share*	\$.1	D \$.10	\$.05





[&]quot;Net Income" represents income (loss) before extraordinary credits.
"Earnings Per Share" represents earnings before extraordinary credits on a fully diluted basic.
"Adjusted for a two-for-one stock split in 1988.

Chairman's Message

Fellow Shareholders:

It is with considerable pleasure and pride that I report to you on another year, another set of new records, and another imposing list of accomplishments. While this may seem like repetitious reporting, I trust that it is no less welcome to you, the owners of our Company.

1986 Financial Results

For the twelve-month period ended December 31, 1986, income before extraordinary credits was \$80.7 million (\$2.22 a share), compared with income of \$54.3 million (\$1.50 a share) for the previous year. Income from the Company's operations increased from \$113.8 million in 1985 to \$139.1 million in 1985, while revenues were \$753.8 million compared to \$732 million in 1985.

For the fourth quarter of 1986, income before extraordinary credits was \$19 million (\$.52 a share) versus \$12.2 million (\$.34 a share) for the 1985 period. Sales for the fourth quarter were \$182.3 million, compared with \$174.2 million for the same period a year earlier.

The Company's 1986 operating results included record-breaking Chemicals profits of \$107.8 million and a substantial improvement in the performance of its Building Materials business from a profit of \$20.1 million in 1985 to \$30 million in 1986. The Company's performance was favorably influenced by increased unit sales for most all its product lines, a more favorable product mix in both its principal businesses, increased manufacturing efficiencies, lower raw material prices, and the decline of the U.S. dollar.

Significant 1986 Developments

GAF's impressive financial performance this past year, in which the Company registered its twelfth consecutive quarter of increased earnings while our Chemicals and Building Materials businesses were recording their sixteenth and twelfth, respectively, consecutive quarterly increases in operating profils, tells only part of the story of our success in 1986. For equally significant is the imposing list of GAF's other achievements, which included completion of the Company's chemicals plant expansion in Marl, West Germany, acceleration of GAF's aggressive capital expansion program, the securing of new iong-term agreements providing for the supply by Union Carbide of acetylene to our two chemicals facilities at Texas City and Seadrift, Texas, acquisition of Borg-Warner Corporation's surfactant business, a successful \$260 million bond offering, GAF's settlement of a



Samuel J. Heyman, Chairman of the Board and Chief Executive Officer (lef!), and James T. Sherwin, Vice Chairman and Chief Administrative Officer.

long-standing legal dispute with five of its principal insurance carriers involving the Company's insurance coverage in connection with asbestos-related health claims, the two-for-one stock split of GAF shares, etc. Since other parts of this Annual Report chronicle the Company's accomplishments in these and other areas, I would prefer to highlight for you several of the most significant developments at GAF during the past year.

Chemicals Business in 1986; Another Record Year and Foised for Further Growth

Our Chemicals business in 1986 registered its fourth consecutive year of increased operating profits, having advanced from \$55.4 million in 1982 to \$64.6 million in 1983 to \$79 million in 1984 to \$92.6 million in 1985 and to \$107.8 million this past year. This almost 180% increase in operating profits in just four years is all the more remarkable, I believe, having been achieved in the face of a relatively lowgrowth, economic environment.

The 16% increase in GAF's 1986 Chemicals profits was accomplished as a result of increased unit sales in most product lines, a favorable product mix, lower raw materials prices, continued cost improvements primarily due to manufacturing efficiencies, and improved profitability of our international operations resulting from increased market penetration and the continued decline of the U.S. dollar. These factors

operated to more than offset the effect of lower prices for some of GAF's chemicals products and sluggish conditions in a number of our end user markets, such as the agricultural, oil service, and petroleum refining industries.

GAF's Chemicals business continued in 1986 to outperform the industry. With sales per employee of \$185,000, operating income per employee of \$52,000, return on sales of 28.6%, and return on identifiable assets of 42.8%, GAF's Chemicals business was once again among the highest ranking performers in the

entire chemicals industry.

Developments of particular significance this past year included: (1) the implementation of an intensified program involving the coordination of marketing, sales, research and development, and commercial development efforts, designed to further upgrade the product mix of GAF's Chemicals business with particular emphasis on our highest value-added, specialty products; (2) the expansion of our international operations; and (3) the sale of GAF's engineering plastics business.

New Products, New Applications, and Intensified Marketing Programs Designed To Increase Penetration for High Value-Added, Specialty

GAF's Chemicals business intensified its effort this past year to develop and commercialize new and improved products and processes as well as new applications for existing, high value-added products, all with a view toward serving customers in specialty markets requiring high performance and technical service. Notable successes in 1986 included the introduction of a whole new family of surfactants which combine the unique properties of GAF's acetylenic and surfactant technologies and are designed for use in the hair care, industrial extractant, and biosynthetic industries, and the development of a new divinylether product (triethylene glycol divinylether) for use in radiation curing.

"When considered against the backdrop of reduced capital spending and flat R&D budgets so prevalent in Corporate America today, we may be spiling against the wind—but it has always been our conviction that the best time to invest and expand Is when the competition is pulling in its horns."

Two additional developments worthy of special mention are:

(a) GAF continued to expand the already wide variety of end-use applications for its Gantrez® co-polymer resins, whose unique and versatile properties are based upon our own proprietary technology and have enabled GAF to tailor products suitable for a multitude of uses. While our Gantrez line has been for some time the product of choice in hair care, denture adhesive, and detergent applications, a significant breakthrough was achieved this past year in the development of Gantrez S-97 as an active and unique ingredient for use in anti-terter toothpaste. The success of this new product, together with increased market penetration for our existing Gantrez family of products, prompted GAF in 1986 to expand its Gantrez production capacity, with a second phase expansion, currently underway, scheduled for completion in early 1988.

(b) GAF intensified this past year the Company's marketing efforts in connection with its safe solvent, M-Pyrol®. Primary applications for this acetylenic solvent have been in the agricultural market for use in herbicides, pesticides, insecticides, and fungicides, the petroleum refining industry for use in the extraction of automotive lubricants, and as an extraction solvent in industrial applications. In addition to these already established uses, GAF continued to expand its market penetration for M-Pyrol use in metal cleaning, paint stripping, dry cleaning, electronics, and adhesives/sealants. In this connection, M-Pyrol is now widely accepted as a safe substitute for chlorinated solvents, the latter having recently provoked serious environmental and safety concerns on the part of regulatory agencies and users alike. We have every expectation that GAF can continue to substantially increase its share of the solvents market in 1987 and beyond.

Growth of International Operations: Expansion of Manufacturing Capacity and Increased Geographic and Market Penetration

Shortly after new management assumed office in December, 1983, GAF determined to substantially increase its commitment to expand its presence in the international arena. The performance of our international chemicals business in 1986 benefited, in no small way, from that strategic decision.

GAF completed, in July, 1986, a major capacity expansion at its joint-venture manufacturing facility in Marl, West Cermany. The Marl facility, which manufactures butanediol and tetrahydrofuran (THF), a chemical intermediate and solvent, respectively, is expected to enable GAF to increase market penetration not only in Europe but in export markets

throughout the world. GAF continued in 1986 to increase its market share for many of its acetylenic products in virtually all the Company's international markets, especially in the North Pacific and Latin America. As part of that effort, GAF combined in Singapore its Australasian and North Pacific headquarters so as to permit it to better serve growing markets for the Company's products in Japan, Hong Kong, China, North Korea, and Taiwan. While a major portion of GAF's business continues to come from Europe, the Company experienced in 1986 particularly solid sales increases in Japan, Australasia, and Latin America, as its products for use in engineering plastics, thermoplastic urethanes, hair care, dental adhesives, toothpaste, and beer and wine met with increased customer demand. GAF's challenge remains to replicate its European success in these and other areas of the world, and our progress this past year augurs well for further improvement in 1987.

Sale of GAF's Engineering Plastics Business

GAF sold, on July 1, 1986, its engineering plastics business to Celanese Corporation. At the same time, we entered into a long-term agreement whereby Celanese agreed to purchase from GAF a substantial portion of its world wide requirements for 1,4 butanediol, a key product manufactured by GAF's acetylene chemicals business and used by Celanese in the manufacture of its engineering plastics and fiber products.

GAF's engineering plastics business consisted of the manufacture and sale of polybutylene terephthalate (PBT) thermoplastic polyester resins, marketed under the trade names GAFITE and GAFTUF, and PBT thermoplastic elastomers, GAFLEX, and was one in which GAF had earned a reputation for innovative, quality products. Nevertheless, it has been a basic premise of our corporate strategy at GAF to limit the businesses in which we participate to those where we have the ability, resources, and commitment to become an industry leader. Given the inevitable limitations with regard to a company's resources in any area of business enterprise, it is quite simply our preference at GAF to do a few things in a thorough, focused, and intensive manner rather than run the risk of spreading our efforts and resources too

CAF's engineering platics business has never been a significant part of our chemicals business, its rela-

"...We have managed, from the start of 1986 to the date of this writing, to increase shareholder values by more than \$500 million which, when added to a comparable record of achievement in our first two years in office, brings to \$1.4 billion the increase in shareholder wealth arising from the efforts of management and your Board of Directors over the past three years."

tively small size and the fact that it was limited to a single product line having operated to inhibit its growth in an industry whose principal participants benefit from economies of scale as well as a broad family of products. As a result, it became increasingly apparent that GAF was simply not in a position to become a major participant in the plastics industry without an extraordinary commitment of financial and other resources, which management and the Board of Directors concluded could be more profitably deployed in other areas. On the other hand, the Celanese transaction provided the opportunity not only to sell our business at an advantageous price but to deploy the considerable resources previously devoted to that business to other more promising areas.

Building Materials Business in 1986: Increased Profitability Through Improved Product Mix, Low Cost Production, and New Product Introduction

GAF's Building Materials business registered its third consecutive year of sharply increased operating profits, continuing a dramatic turnaround from a loss of \$34.5 million in 1983 to operating profits of \$10.9 million in 1984, \$20.1 million in 1985, and \$30 million in 1986. The improved performance of GAF's roofing materials business resulted from higher residential roofing unit sales, a more favorable product mix aided by new product introductions and increased sales and marketing emphasis on its premium products, and reduced costs of production resulting from manufacturing efficiencies and lower raw material prices.

These favorable factors more than offset the adverse effect of the erosion in prices for GAP's roofing products (which have continued to decline for five consecutive years) and the sluggish demand for commercial roofing materials resulting from the pronounced nationwide slowdown in commercial construction. Despite severe competitive pressures.

however, GAF maintained its predominance as the nation's leading manufacturer of residential roofing products while managing to improve its position in the commercial roofing market as well.

One of the principal factors responsible for the continued improvement in the performance of GAF's Building Materials business was the increased market penetration for its premium rooting product, Timberline®, which resulted in turn from enhance ment of the product, increased advertising expenditures, and an intensified marketing and sales effort. In addition, our Royal Sovereign®, a residential shingle introduced by GAF in 1985 and designed to capitalize on the "middle market" for quality roofing materials, experienced increased market acceptance this past year, In the commercial area, GAF's Ruberoid® MB, a modified bitumen single-ply roofing system developed and brought to market in the latter part of 1985, achieved sales in 1986 which far exceeded projections. We expect that this new product will be an even more substantial contributor to operating profits in 1987.

Perhaps the most promising new product introduction for GAF's Building Materials business in recent years is GAF Wood Line and a mid-weight laminated shingle brought to market this past December. GAF Wood Line is designed to capture an increased share of the architectural, laminated roofing market with particular emphasis on new home construction. Production began at GAF's Mobile. Alabama manufacturing facility in December, and the product has met with such enthusiastic customer response that we are already making plans to commence GAF Wood Line production at our Dallas, Texas, Fontana, California, and Beltimore, Maryland facilities later this year.

GAF's Building Materials business benefited from the Company's continued program involving substantial investment in plant and equipment. In the three years 1984-1988, total capital expenditures were more than \$50 million, with its capital plan for 1987 expected to exceed \$25 million. This capital program is designed to: (1) increase capacity at a number of our manufacturing facilities so as to satisfy increased customer demand for GAF's products; and (2) upgrade and modernize the Company's manufacturing facilities in order to further reduce costs of production. It is expected that results for 1987 and beyond will benefit as a result of the returns from this high level of capital investment.

Final Chapter of the GAF-Union Carbide Story

GAF decided to discontinue its Union Carbide acquisition effort when, on October 3, 1986, the two

Companies entered into a ten-year standstill agreement in which GAF agreed not to acquire additional shares of Union Carbide. Since that time, GAF has disposed of more than half its Union Carbide holdings, leaving the Company with an after-tax gain on its Carbide investment (after expenses and including the unrealized gain on the holdings it still retains) of more than \$250 million.

Since the effect of hostile takeovers on Corporate America and our nation's economy is currently a matter of no small controversy, there is a lesson to be learned, I believe, in reviewing for a moment the aftermath of the Union Carbide affair.

- (1) GAF's acquisition attempt, while falling short of its goal to acquire Union Carbide, will realize for GAF shareholders more than \$250 million in after-tax gains, which is especially significant when one considers the fact that the entire market capitalization of GAF when new management assumed office in December, 1983 was less than that amount;
- (2) Union Carbide shareholders were substantial beneficiaries as well, as GAF's takeover effort succeeded in creating for them more than \$3 billion in increased shareholder values; and
- (3) The Union Carbide Corporation is, we would maintain, the better for the experience. After having lost its way for a number of years, now under new management headed by an able and vigorous chief executive, Carbide has sharply reduced its costs of operation at every level, eliminated unnecessary layers of management, and divested more than \$3 billion of assets which were either underperforming or outside the mainstream of its chemicals business. As a result, Union Carbide is today a more focused, efficient, productive, and profitable Company than at any time in recent history.

There are, of course, undestrable as pects of the corporate takeover movement as well. As we have made clear so many times before, not only in our words but by our actions, we deplore the widespread abuses to which the takeover movement has given rise. Greenmail, golden parachutes, pension parachutes, poison pills, and other similar practices designed to either give preferential treatment to one shareholder over the next or to entrench incumbent management tend only to frustrate the realization of shareholder values. And yet notwithstanding these objectionable aspects. the overall effect of corporate takeovers can be characterized as salutary in that they produce more winners than losers, operate to keep management on its toes, create shareholder wealth, and make a positive contribution to the revitalization of industry.

Outlook for 1987

GAF concluded this past year on a particularly strong note, moving into 1987 with considerable momentum. And as we near completion of what, as of this writing, appears to be a strong first quarter, I have a high conviction that, barring some unforeseen calamity, GAF will record another substantial earn-

ings increase in 1987.

As for the Company's Chemicals business, we have every expectation that 1987 will prove to be another outstanding year. The factors which are anticipated to favorably influence the performance of our Chemicals business this year are the already completed expansions of production capacity at the Company's Calvert City, Kentucky, and Mari, West Germany, facilities, increased product development which continues to enable GA. Chemicals to gain greater market penetration in end user industries such as pharmaceuticals and cosmetics, a lower dollar, continued above average growth for many of our end user markets, the impact of a full year's results for the surfactant business we acquired from Borg-Warner in the second half of 1986, and the ever increasing contribution of our international operations to the overall performance of GAr's Chemicals business.

With regard to the Company's Building Materials. business, a significant development this past year was the improvement in its operation margins, which have increased from 2.9% in 1984 to 5.5% in 1985 to 3.1% in 1986, with the last half of 1986 operating at a rate of nearly 9%. While these margins are still far from acceptable, the trend is at least in the right direction and provides reason to expect that we can make further progress in 1987 as a result of the upgrading of our product mix, stringent cost controls, and improved manufacturing efficiencies.

While the challenge for GAF's Building Materials business in 1987 is to continue to outperform the roofing materials industry in which it operates, truly dramatic gains in our operating performance are not likely in the absence of industry-wide price improvement. In this connection, roofing prices fell 7% on average this past year, making 1986 the fifth consecutive year in which prices for our products have continued their free fall. As in previous years, overcapacity in the industry was the principal cause for severe competitive conditions. Although several of GAF's competitors closed manufacturing facilities in 1986, thereby ameliorating the supply-demand imbalance to some degree, it nevertheless remains our conviction that pricing for roofing products will not improve until industry participants abandon

strategies dominated by volume and market share considerations and adopt a more disciplined, bottom-

line approach to their businesses.

GAF concluded the year in the strongest financial condition in its history. As of December 31, total assets were more than \$1.3 billion, of which more than \$860 million (or \$24 per share) consisted of cash, short-term investments, and marketable securities. While the current low level of interest rates has made short-term, money market type investments relatively unattractive, thereby creating added incentive for the Company to deploy its financial resources for acquisitions, we at GAF will simply not make deals for the sake of making deals. In this connection, we continue to carry, as investments, stakes in Borg-Warner Corporation and CBI Industries, Inc. Whether either of these develop into acquisitions remains to be seen, but we continue at any rate to view them as attractive investment opportunities. Finally, although the acquisition field can be characterized today as one in which there are simply too many dollars chasing too few transactions, we still hold the view that there are always opportunities if you look long and hard enough and that the strength and liquidity of our balance sheet will, when the time comes, stand us in good stead.

We are taking adventage of our financial resources to make long-term investments in GAF's existing businesses, whether it be in the modernization of plant ara, equipment, process improvements designed to lower production costs and improve the quality of the Company's products, expansion of productive capacity so as to satisfy increased customer demand, or the acceleration of research and development activity in order to ensure the continued development and long-term growth of GAF's businesses.

By the end of this year, we will have expended in the three-year period 1985-1987 more than \$180 million for capital projects in both our Chemicals and Building Materials businesses. So also in terms of other kinds of long-term investment, research and development expenses in our Chemicals business, for example, have increased by an average of 20% per annum in the last two years, with a 25% increase projected for 1987. When considered against the back-

"...It is quite simply our preference at GAF to do a few things in a thorough, focused, and intensive manner rather than run the risk of spreading our efforts and resources too thin."

"...I have a high conviction that, barring some unforeseen calamity, GAF will record another substantial earnings increase in 1987."

drop of reduced capital spending and flat R&D budgets so prevalent in Corporate America today, we may be sailing against the wind—but it has always been our conviction that the best time to invest and expand is when the competition is pulling in its horns.

Acknowledgments

Because our record over the period of the past three years is the product of the efforts of so many, it has been my custom to express appreciation to those who have made a contribution to the purposes and goals of our Company. Accordingly, we take public cognizance of and thank:

- GAF's Board of Directors for their steadfast support and counsel and for their policy decisions which have contributed to steering a proper course for the Corporation and providing a framework for management.
- Those fellow employees who have manifested abilities, efforts, and a degree of intensity far beyond the ordinary in carrying out GAF's policies and the pursuit of our common objectives.
- Our customers, whose business we depend upon, whose longstanding loyalty we appreciate, and for whom we at GAF constantly strive to reciprocate in our dedication to providing products of the highest quality at the most competitive prices.
- Our outside professionals, in legal, financial, accounting, consulting, and other related capacities who by alacrity of response, commitment to our principles and viewpoint, and cooperative endeavor have made important contributions in areas critical to the well-being of our Corporation.

It has always been my view that one of the most telling signs of the health, vigor, and vitality of a business enterprise is not only the quality and enthusiasm of its existing employees and management's ability to motivate, lead, and develop them but so also the degree to which it is able to recruit outstanding executives to the Corporation from the outside. And so I take particular satisfaction, among our accomplishments in 1986, in recounting the fact that we attracted to CAF this past year literally hundreds

of outstanding executives and employees. Deserving of particular mention is Heinn F. Tomfohrde, III, our new President of GAF Chemicals Corporation and Executive Vice President of the Corporation, Irving Kagan, GAF's General Counsel, and Frank Sheeder, Jr., the new head of our International Chemicals business.

In a similar vein, I am pleased that these pages afford me the opportunity to take note of the election of Carl Eckardt to GAF's Board of Directors. Carl has served GAF with great distinction in a number of positions of increasing responsibility over the period of the past ten years, including as President of GAF Chemicals Corporation where Carl guided the Company's business to a record sixteen consecutive quarterly increases in operating profits. In his new position as Executive Vice President, Corporate Development, Carl will coordinate our acquisition activities which have now taken on an increasingly

important role at the Corporation.

Last, but not least, I am delighted that this Annual Report affords me the opportunity to affirm once again the crucial role that you our shareholders and owners play in our corporate and management process. In this regard, you should know that the deliberations of GAF's Board of Directors are constantly buoyed by your often expressed regard for our Company, its principles, and its record. So also management, as your fellow shareholders and managers of GAF's affairs, are renewed by your encouragement and support in our dedication, determination, and commitment to advance the interests of the Company and its shareholders. It is therefore again with pride that I recount the fact that we have managed, from the start of 1986 to the date of this writing, to increase shareholder values by more than \$500 million which, when added to a comparable record of achievement in our first two years in office, brings to \$1.4 billion the increase in shareholder wealth arising from the efforts of management and your Board of Directors over the past three years.

We look forward to reporting to you in the coming year continued favorable developments.

Sincerely,

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Samuel J. Heyman Chairman of the Board and Chief Executive Officer

March 17, 1987



Chemicals

AF's worldwide specialty chemicals business registered in 1986 its fourth consecutive year of record profits. GAF Chemicals' income reached \$107.8 million, compared with \$92.6 million the year before, while sales increased to \$377.5 million from \$364.4 million in 1985. This record-breaking profit performance reflected increased unit sales in most product lines, an improved product mix, lower raw material costs, and continued manufacturing efficiencies. Lower prices for some of GAF's products were more than offset by increased unit sales.

GAF Chemicals produces two major groups of specialty chemicals—acetylenic derivatives and surfactants—at seven domestic and international facilities for markets in 71 countries. A third product line, mineral roofing granules, is manufactured at four domestic plants and marketed to asphalt roofing manufacturers, including GAF Building Materials. A fourth business, engineering plastics products, was sold during the year to Celanese

Corporation.

GAF continued to pursue it 1986 a strategy highlighted by both heavy capital investment and an intensive program designed to further upgrade the Company's product mix by underscoring the importance of superior performance, high value-added specialty chemicals. With regard to its capital program, the Company committed substantial financial resources to the modernization of its plants and equipment, installing not only new cost-efficient processes but expanding productive capacity. By the end of 1987, GAF Chemicals will have completed a four-year capital plan involving an investment of more than \$100 million. In connection with GAF's product mix strategy, the Company intensified its effort this past year to develop and commercialize new and improved products and processes as well as new applications for existing, high value-added products, all with a view toward serving customers in specialty markets requiring high performance and technical service.

Acetylenic Derivatives

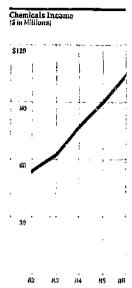
GAF Chemicals' more than 70 different acetylenic derivatives registered in 1986 significant sales growth, as this product line continued to be a substantial contributor to operating profits. GAF's acetylenic chemicals business, in



GAF solvents and surfactants are important ingredicats in paints and other costings.



GAF chemicals are used in a host of consumer products, including foods, kitchen goods bousehold channers, pharmaceutirais, and over-the-counter drags.



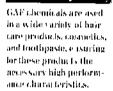
which the Company shares worldwide leadership with one principal competitor, is a business with unusually heavy technical service and research and development components. GAF employs a proprietary technology to produce its versatile line of intermediates, solvents, and specialty chemicals for literally hundreds of products in such end-user markets as pharmaceuticals, cosmetics, beverages, and engineering plastics. The Company's strengths in acetylenic derivatives include its technology, diversity of manufacturing facilities and raw material sources, broad product lines, extensive research, marketing expertise, and a dedication to quality.

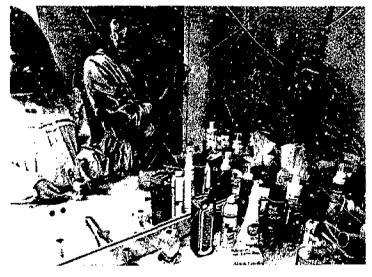
marketing expertise, and a dedication to quality.

Sales of butanediol, GAF's basic acetylenic derivative product, to the engineering plastics industry increaced significantly. Butanediol is a key raw material used in the manufacture of polybutylene terephthalate (PBT) thermoplastics, plastic resins which have found increasing application in the automotive, electronics, and appliance industries. GAF strengthened its position in 1986 as a leading producer of butanediol by securing a long-term contract to supply Celanese Corporation with a substantial portion of its worldwide requirements for butanediol in connection with the latter's manufacture of engineering plastics and fibers.

GAF's high-performance solvents, N-methyl pyrrolidone (NMP), gamma butyrolactone (BLO), and tetrahydrofuran (THF), registered another solid sales performance. These products are used in lube oil extraction, wire enamel production, plastic pipe caments, agricultural chemicals, and a broad range of cleaning agents. The Company anticipates substantial sales growth for NMP as customers become more acutely aware of the cost, safety, and environmental advantages of this safe GAF solvent as a replacement for methylene chloride in paints, paint thinners, metal and electronic cleaners, and other industrial and consumer cleaning applications. NMP and BLO continued to experience in 1986 increased sales to the agricultural chemicals industry for use in herbicides, pesticides, insect.cides, and fungicides.

Sales of fixative polymers to the hair care industry increased substantially. GAF's Gafquat® polymer is a leading ingredient in styling products such as hair mousse, a relatively new consumer product that has experienced explosive growth in recent years, with annual retail sales exceeding \$200 million. Other important products designed for the hair care industry, an important





market for GAF, include Gantrez® and Gaffix® resins, key ingredients in hair sprays and other personal care formulations.

Demand increased for Polyplasdone® disintegrants and Plasdone® excipients, ingredients of choice for tablet binding and disintegration and controlled release and transdermal drug delivery, all in connection with over-the-counter health care products and pharmaceuticals. Another key GAF product, Polyclar® stabilizer, used to ensure color quality and to extend the shelf life of beer, wine, fruit juice, and a variety of foods, also experienced a year of solid sales.

New product applications contributed to increased demand for Gantrez® resin, long used among other applications in dental adhesives. Gantrez S-97, a new application for use as an active ingredient in tartar-control toothpaste, was introduced on the worldwide market in 1986 and promises to be a substantial contributor to Gantrez' sales and profits.

GAF continued in 1986 to solidify its raw materials position by securing long-term agreements for the supply by Union Carbide Corporation of acetylene to the Company's chemicals facilities at Texas City and Seadrift, Texas. These agreements enhance the Company's future in acetylenic chemicals by ensuring GAF's role for many years to come as a reliable, low-cost supplier of quality products.

Surfactants

GAF supplies more than a dozen major industries with one of the broadest lines of surfactants (surface active agents) for use as key ingredients in literally hundreds of products. The Company's surfactant products include the Igepal® and Pegol® series of nonionics and the Alipal®, Gafac®, and Igepon® anionics, product families which are both important in the manufacture of cosmetics, plastics, paper, textiles, and industrial and household cleaners. GAF is currently expanding its surfactants business by accelerating both its marketing and research and development efforts, with particular emphasis on higher value-added specialty products.

The Company acquired in 1986 the surfactants and phosphate esters businesses of Borg-Warner Corporation, including a related manufacturing facility in South Carolina. GAF acquired in the transaction not only important



GAF surfactants are used in newspaper recycling for efficient and costeffective operation.

GAT analylanics and surfactoris are major ingredients in bike tires, fingerpaints, and give sticks and linuschold cleaners, such as rug shampons.



GAF laboratory studies concerning the dissolu-Kon of tablets enable the Company to improve the clinical électiveness of medication delivery.

new technology but increased manufacturing capacity to meet the expanding needs of its worldwide surfactant customers, strengthening at the same time GAF's position in the growing southeastern U.S. market. The new technology provides GAF with new surfactants products, including; the Pegol® series of block polymers used as defoaming, wetting, and emulsifying agents in a multitude of applications; tributoxyethyl phosphate (TBEP) used as a leveling agent in household products such as floor wax; and the Pegafac® and Enerade® products psed in the oil service industry for enhanced oil recovery, GAF is already in the process of expanding production capacity at the South Carolina plant.

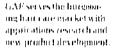
Mineral Granules

The third major segment of GAF Chemicals, the manufacture and sale of roofing granules, registered in 1986 a significant sales increase. These pebble-like granules are designed not only to improve the aesthetic and heat deflection properties of roofing products but to increase the weight of roofing shingles so as to enhance their weather resistence. GAF also sells granules for use in the construction of synthetic clay tennis court surfaces. GAF's granules products are manufactured from selected basalt rock and are quarried, crushed, coated, and heat-processed into a semi-ceramic product in more than 20 colors.

GAF's granules business continues to benefit from two important roofing industry trends. First, roofing manufacturers are still in the process of converting their shingle production from organic to glass fiber substrate, fiberglass-based products requiring 10% more granules. Second, substantially increased industry-wide production of laminated shingles, such as GAF's Timberline® and GAF Wood Line™ premium shingles, has also resulted in increased demand for granules in view of the fact that laminated shingles require 25% more granules than lower-cost, commodity roofing products.

International Chemicals Business

GAP's International Chemicals business is an uncted by 18 subsidiaries and branches throughout the world. Shortly Later new management assumed office in December 1983, GAF determiner Lo substantially increase its com-





mitment to expand its presence in the international arena, and the performance of GAF's International Chemicals business in 1986 benefited in no small way from that strategic decision. Furthermore, the Company continued to pursue a strategy designed to increase sales in those countries where GAF chemicals products are already marketed, while also aggressively entering newer markets for GAF, including Eastern Europe, China, Kôrea, and North Africa. Major product lines sold internationally include intermediates such as butanediol, acetylenic specialties, surfactants, and bag filter and pressure vessel systems.

GAF's joint venture in West Germany, GAF/Hüls Chemie GmbH, manufactures butanediol and tetrahydrofuran (THF), a chemical intermediate and solvent, respectively. These products are marketed throughout Europe by both the GAF International and GAF/Hüls sales forces. The joint venture's production capacity for butanediol was increased by 100% this past year, thereby enabling GAF to improve its market penetration not only in Europe but in many other markets around the world as demand for this product, a critical raw material for use in engineering plastics, fibers, and many other man-made products, continued to increase.

International operations are divided into three regions: Europe, Western Hemisphere, and Asia-Pacific The largest of these is the European region, which in addition to all European markets has responsibility for the Micidle East, Africa, and the Indian subcontinent. Unit sales in Europe continued to increase in 1986, as Plasdone and Polyplasdone in the pharmaceutical market and Gantrez and Gafquat in the hair care market generated strong demand.

Despite high inflation rates and currency devaluations currently being experienced in many Western Hemisphere countries, GAF's sales in this region registered a solid increase. The Company operates through subsidiaries in Canada, Brazil, Puerto Rico, and Mexico and through distributors in other Latin American nations. Substantial increases in GAF's revenues resulted from the growing demand for GAF polymers and resins throughout the Company's markets in the Western Hemisphere.

The Asia-Pacific region was reorganized in 1986 as the Company combined in Singapore its Australasian and North Pacific units to better serve expanding markets in Japan, Hong Kong, China, Korea, and Taiwan. The reorganiza-



GAP's new family of Surfadone surfactants, combining the unique properties of GAP's acetylenic and surfactant technologies, will be marketed to the hair care, industrial extractant, and biosynthetic industries.



GAP's Games—resins are finding application in suntan folion formulas designed to extend sunscreen profection.



The capacity at GAF's joint venture manufacturing facility in Marl, West Germany, was expanded in 1986 by 100%

tion of this region is designed to improve customer service and operating efficiencies. Sizable sales increases were recorded in 1986 in Australasia, Japan, and other markets in that region. Particularly strong sales were recorded for GAF products used in engineering plastics, hair care products, dental adhesives, toothpaste, and beverages. GAF is also a leading supplier of M-Pyrol®, the NMP solvent, throughout the Asia-Pacific region, a product used extensively in that area of the world for semiconductor microchip production.

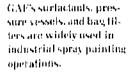
GAF has been for some time an international market leader in bag filtration and is steadily increasing its penetration in the pressure vessel market as well. These products are manufactured in Belgium, Germany, Brazil, and Canada for use in the filtration of process liquids in the chemicals, pharmaceuticals, paint, food, and beverage industries. The Company's bag filter and pressure vessel business registered this past year significantly increased sales.

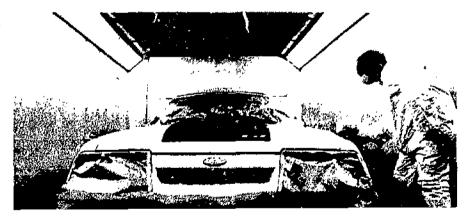
Research and Development

GAF Chemicals continued to expand its commitment to its research and development activity in connection with new products, new processes, and new applications and enhancements for existing product lines. This research and development program, which has each year since 1983 grown substantially, led this past year to several important new product introductions as well as innovative applications for existing products, including the development of Gantrez S-97 for use in tartar-control tooth paste, a promising new product area. The Company is already supplying Gantrez S-97 to one of the world's leading toothpaste manufacturers and expects that other producers will begin to use the GAF product as well.

Two important new product developments this past year which are expected to be ready for introduction to the market in 1987 are:

 Surfadone™ surfactants, GAF's new family of chemicals combining the Company's expertise in surface chemistry with its proprietary acetylenic technology. The Company intends to market Surfadone products as multifunctional cosmetic additives, designed to increase, for example, the hair's





manageability, luster, shine, and body when used as ingredients in shampoos, hair sprays, rinses, and mousses. Significant additional uses for the Surfadone family of surfactants are expected to include a number of industrial applications, such as the extraction and purification of products in the biopharmaceutical industry.

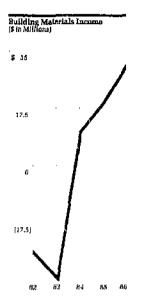
• A new divinylether product, triethylene glycol divinylether, for use in radiation curing. This exciting new product, when added to the Company's already successful vinyl pyrrolidone line, will enable GAF to expand its presence in the radiation curing market. The product improves the process for rapid curing of coatings for wood, metal, paper, and plastics by use of ritraviolet light or electron beams as energy to convert a liquid costing into a bonded solid. GAF anticipates rapid growth for this product line, which offers increased adhesion, reduced energy use, and environmental advartages over alternative formulations.

Building Materials

AF Building Materials continued in 1986 to improve its financial performance, with income increasing by 49% to \$30 million from \$20.1 million the previous year, while sales were \$372.1 million compared with \$363.9 million in 1985. These gains, in the face of severe industry-wide competitive conditions, reflected Building Materials' improved product mix, manufacturing efficiencies, cost reduction programs, and the Company's increased market share resulting in part from new product introductions. GAF maintained this past year its preeminent position as the nation's leading manufacturer of residential roofing products, while increasing its market position in the commercial roofing area.

Building Materials' successful strategy over the past three years has been based in part on an intensive marketing program designed to improve product mix through increased emphasis on its existing and new promium products. Although the roofing materials industry has traditionally been regarded as having a commodity orientation, GAF recognized several years ago that there exists substantial homeowner demand for premium roofing products designed to upgrade the appearance and value of the home.

The other element of Building Materials' successful strategy has been to reduce both manufacturing and operating costs through a program which includes substantial capital investment, technological improvement, and energy conservation. As part of that program, GAP Building Materials has become the industry's most fully integrated manufacturer of asphalt roofing products. Having acquired Reichhold Chemicals' glass fiber business in 1985, GAF now has its own captive supply of glass mat, roofing granules, and glass fiber, thereby enabling the Company to maintain its position as a low-cost producer in the industry while assuring for its customers a reliable supply of quality products.





GAF Building Materials operates ten roofing manufacturing facilities at strategically located sites across the United States. As part of the Company's aggressive capital investment program, major capital projects intended to achieve either substantial manufacturing cost reductions or increases in production capacity were commenced or completed in 1986 at Mobile, Alabama, Fontana, California, Mt. Veran, Indiana, Baltimore, Maryland and Dallas, Texas. Several of the capital projects involving capacity expansions are designed to accommodate production of the Company's excitting new GAF Wood Line¹⁸ shingle, a middle-market faminated product.

One of GAF's distinct competitive advantages is its outstanding sales and

One of GAF's distinct competitive advantages is its outstanding sales and technical staff, covering all major geographic regions of the United States. The Company's more than 100 marketing and service technicians have earned for GAF an outstanding reputation for customer service, a fact to which Building Home Supply Centers magazine gave recognition in 1986 when it named GAF "the easiest manufacturer-supplier to work with."

Residential Roofing

GAF continued this past year to register increased sales of residential roofing products, aided in part by strong re-roofing demand and the healthy pace of new home construction, both of which were fueled by the prevailing low level of interest rates. GAF's residential roofing products serve a broad spectrum of customer needs and preferences—from GAF's standard Sentinel® asphalt shingle to its premium products, Timberline® and GAF Wood Line.

GAF's standard three-tab shingle, Sentinel, is the Company's residential roofing volume leader and has for years been a market staple for both new housing and re-roofing needs. Royal Sovereign® shingles, serving the "middle market" requirements of homeowners seeking a trade-up product, feature a 25-year limited warranty and are available in a wide range of colors. Royal Sovereign, having been introduced to the market in 1985, registered exceptional sales growth in 1986 and now commands a substantial share of the market in which it competes.

Another year of record sales for Timberline, GAF's premium roofing product, contributed significantly to the Company's outstanding performance. Timberline is a three-dimensional, heavy-weight, laminated



GAF's new Weatherwatch is designed to provide roofs with an ice and water berrier in northern regions where climate causes ice build-up, thereby exposing homes to water damage.



Homeowners are teading up to GAF's premion shingles. Timbe froe far left) and GAF Wood Line [max-left], to enhance the appearance and value of their homes.



A toll-free advisory service keeps GAF's commercial rooting customers up to date with the latest in roofing materials advice.

shingle offering the appearance of a wood shake, a class A fire rating, and 30-year limited warranty. New 'Fimberline colors and designs were featured this past year in an extensive trade and consumer advertising and promotional program, which reinforced Timberline's widely recognized position as the industry's "top of the market" product.

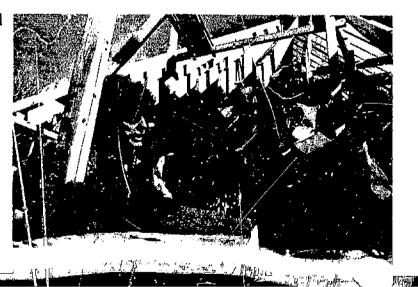
New Residential Roofing Products

One of GAF's most promising new roofing product introductions in recent years is GAF Wood Line, a mid-weight laminated shingle brought to market in late 1986. GAF Wood Line is designed to capture an increased share of the architectural, laminated roofing market, with particular emphasis on new home construction. Production has begun at GAF's Mobile, Alabama, manufacturing facility, and the product has met with such enthusiastic customer response that plans are already being made to commence GAF Wood Line production at its Dallas, Texas, Fontana, California, and Baltimore, Maryland facilities later this year.

Two other important new products were introduced in early 1987:

- Timbertex Hip and Ridge ¹⁸, an accessory product for the Company's asphalt shingle line, which is aimed at enhancing the design features of a home's roof line. GAF's proprietary manufacturing process has enabled the Company to manufacture a product four times thicker than conventional hip and ridge coverings, thereby adding depth and richness to a roof's appearance and facilitating installation by eliminating a labor-intensive, triple-layer application at the ridge.
- Weatherwatch¹⁴, a modified asphalt product reinforced with fiberglass and designed to provide an ice and water barrier. The product has a sturdy self-adhesive backing and a slip-resistant surface to assist the contractor in connection with both roof installation and repair. It is expected that demand for Weatherwatch will be particularly strong in northern regions where climate ceuses ice build-up, thereby exposing homes to water damage.

Tradectes Hip and Ridge, when applied on new or existing homes, enhances the roof line and dramatices the appear on each the arclatectural features.



Product Enhancements

GAF Building Materials maintains an active program designed to continually enhance and improve its existing products, and the program in 1986 yielded two significant product enhancements:

• GAF's New Enhanced Timberline, a thicker version of this already industry-leading laminated shingle product. The enhanced Timberline offers additional thickness as well as design features to highlight and expose not only the texture but also the wood shake appearance of this premium shingle.

• GafGrip'*, an improved self-sealing adhesive backing which will be incorporated nationwide in 1987 into the manufacture of all GAF aspinalt shingle products. GafGrip affords a faster and stronger bond between shingle and roof, thereby facilitating installation and increasing the shingle's weather resistance. This significant product improvement affords GAF's fiberglass-based asphalt roofing shingles with a turther advantage over traditional organic roofing products.

Commercial Roofing

GAF is a leading producer of commercial roofing materials, manufacturing and marketing total roofing systems designed to meet the needs of the roofing contractor from the roof's deck to its cover. The Company's emphasis on its complete commercial roofing system enabled GAF this past year to increase its already substantial share of the commercial roofing market.

GAF offers both built-up and single-ply roofing systems to the commercial market, employing a combination of new and proven roofing materials for both re-roofing and new construction needs. Built-up roofing systems start with Gaftemp® insulation boards and Gaftite® fasteners. A base sheet, typically #75 Gefglas® Base Sheet or Gafglas® Stratavent, is then applied as the next step in the roofing system. Gafglas® Ply #4 and companion built-up roofing asphalt products are then installed in layers to form the most important membrane of the built-up roof. Finally, Gafglas® Cap Sheet is offered as an additional layer to provide a factory-finished mineral surface in those regions where climate is conducive to the use of this efficient installation process.



GAF's latest commercial roofing advertising campaign teatures the original Ruberoid manufacturing plant and a complete line of GAF commercial coofing products.



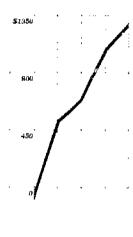
Roberoid MR, GAF's single-ply commental rooting product, is manulartured and sald in both turch-applied (as shown) ar map-applied versions.

Since its introduction in the early 1980s, more than eight million rolls of Gafglas Ply #4 have been installed without a single product-related failure. This outstanding record of in-place performance, which GAF believes is unique in the entire commercial roofing industry, together with the product's superior handling characteristics, enabled GAF in 1986 to substantially increase its share of the commercial roofing market.

GAF's most important new product introduction for the commercial roofing market this past year was Ruberoid® MB, a sturdy, resilient modified bitumen roofing membrane. This single-ply product is designed to satisfy the requirements of a growing segment of the commercial roofing market where there is a particular need, especially with regard to office buildings and shopping centers, for a product which can be shipped in rolls and applied with ease. The cost and performance advantages of Ruberoid MB, which include superior weather resistance and flexibility, resulted in exceptionally strong sales in the product's first year of introduction, and Ruberoid MB is expected to quickly capture a significant share of the single-ply market. Finally, the product's success has contributed to increased sales for #75 Gafglas Base Sheet, an essential companion product for use in all built-up and single-ply roofing systems.

Contributing to GAF's success in the commercial roofing market in 1986 was its decision to increase its product warranty protection by extending wide-ranging and competitive coverage for up to 20 years to all of the Company's commercial roofing products.

GAF Breadcasting Income (\$ In Thousands)



GAF Broadcasting

NCN (104.3-FM) New York, GAF Broadcasting's classical radio station, registered another outstanding financial performance in 1986 while maintaining its tradition of programming quality and excellence. Operating income rose by 18% to \$1.3 million on a 14% increase in sales, as the station's success in attracting an audience comprised primarily of educated and affluent listeners in the 25-to-54 age group continued to generate increased advertising business from restaurants, boutiques, mass merchandisers, and financial service organizations.

One of WNCN's strategics continued to be the introduction of classical music to a new and younger listening audience, while at the same time serving the station's traditional listenership. Highlighted this past year by its 10th anniversary theme, "New York's Younger Classical Music Station," WNCN's programming format focuses on classical music and special features, such as the "Hamptons Report" on the popular New York resort in the summer months, news coverage of ski conditions in the New England area during the wintertime, and "Stendahl on Wine and Food" throughout the year.

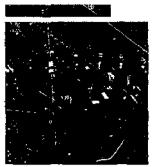
GAF is proud of WNCN's well-deserved reputation as one of New York's most important cultural assets, for which the station has won wide public recognition as evidenced by awards in recent years from a number of prestigious industry groups, including broadcasting's highest honor, the Peabody Award.



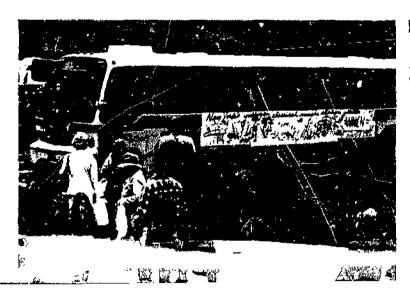
Moreover, David Dubal, WNCN's Music Director, received in 198. the first Deems Taylor Broadcast Award from the American Society of Composers, Authors, and Publishers (ASCAP) for his direction of the station's computerized music library, and another Deems Taylor Award was given to Keynote, WNCN's monthly magazine and program guide.

Other major highlights of the year included:

- WNCN, in an effort to achieve additional market penetration in the all-important morning time segment, augmented its Morning Show with special appearances by celebrity guest announcers, including Beverly Sills, Marilyn Horne, and Kiri Te Kanawa.
- WNCN celebrated its 10th anniversary with a live broadcast of a Town Hall performance by the Cleveland Quartet, violinst Elmar Oliviera, planist Ruth Laredo, flutist Ransom Wilson, and the chorus of Musica Sacra.
- WNCN provided live coverage of the reopening of one of the nation's greatest cultural landmarks, Carnegie Hall.
- WNCN maintained its support for New York area cultural organizations, staging on-the-air Lenefit events for both Carnegie Hall and the New York City opera.
- WNCN continued to both originate weekly live concerts from its own performance studio and broadcast recorded concerts (including programs by the Chicago Symphony and AT&T-sponsored musical events from Carnegie Hall) and performances from the Waterloo Festival in New Jersey, the Caramoor Festival in New York's Westchester County, and the 92nd Street "Y" in Manhattan.
- WNCN expanded its financial news coverage by adding a daily stock market report and commentary.
- WNCN continued as the flagship station of the Concert Music Network in its role as the sole New York station to be represented by Concert Music Broadcast Sales, the nation's only all-classical sales representative.



Musica Sacro, directed by Richard Westenburg, performing for WNCN's 16th Anniversary concert, broadcast live on September 30, 1986,



WNCN cetebrated its 10th auniversary year with an advertising program designed to altract "younger" listeners from all walk of lite.

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Management's Discussion and Analysis of Financial Condition and Results of Operations

Financial Condition

Record earnings and significant increases in cosh flow from operations substantially improved the Company's financial condition during 1986 and 1985. The Company's cash flow from operations more than tripled in 1986 to \$313 million after a \$20 million (25%) increase in 1985. Total working capital increased \$315.1 million (178%) to \$492.2 million after a \$36.4 million (26%) jump in 1985, while total assets increased \$467.9 million (53%) in 1986 to \$1.347 billion. Shareholders' equity has nearly tripled in the last two years, from \$214 million at December 31, 1984 to \$298.2 million in 1985 and \$601.5 million as of December 31, 1986.

This improvement in financial condition reflects record high earnings by the Company's Chemicals business, a turnaround by the Building Materials business, and an increase in income on investments from \$4.2 million in 1984 to \$22.4 million and \$77.9 million in 1985 and 1936, respectively. In addition, the Company in 1986 realized extraordinary gains of \$201.4 million, after taxes and expenses, on its investment in Union Carbide Corporation (see Note 2 to Consolidated Financial Statements).

Of the total assets of \$1.3 billion at December 31, 1986, \$864.8 million consists of cash, short-term investments and marketable securities as compared with \$419.4 million and \$69.6 million at December 31, 1985 and 1984, respectively. A substantial portion of this increase in cash and investments was generated from cash flow from operations. The Company's total debt was \$483.2 million at December 31, 1986, compared with \$374.4 million and \$89.3 million at the end of 1985 and 1984, respectively. Total cash and investments at December 31, 1986 were \$24.36 per share, while debt was \$13.81 per share, Debt 22 a percent of debt plus equity was 29.4%, 55.7%, and 44.5% as of December 31, 1984, 1985 and 1988, respectively.

In November 1986, the Company issued \$155 million of 10%% senior subordinated notes due 1994 and \$105 million of 10%% senior subordinated debentures due 2001. The notes are redeemable after October 31, 1991, and the debentures after October 31, 1995. Annual sinking fund payments of 18.75% of the principal amount of the deben-

tures originally issued, commencing November 1, 1997, are calculated to retire 75% of their principal amount prior to maturity. These securities will be subordinated to all existing and future senior indebtedness of the Company. Net proceeds were approximately \$249.1 million, after expenses and discounts.

In October 1985, the Company placed a \$38.1 million mortgage on the Company's headquarters property. The mortgage is due on October 8, 1996, and interest on the funds is at a rate based on the London Interbank Offer Rate. The funds were utilized mainly for repayment of debt. An \$8.7 million capital lease obligation for the headquarters property due in August 1997 was paid as of September 30, 1986.

On June 30, 1986, the Company entered into a \$100 million three-year revolving credit facility with a consortium of ton banks, replacing the Company's previous \$75 million revolving credit agreement, which had been increased from \$50 million in May 1986. Interest on borrowings is, at the option of the Company, at the prime rate, a rate based on the London Interbank Offer Rate, or a rate based on the Certificate of Deposit Rate. The agreement includes certain restrictions on dividends and provisions for the maintenance of minimum working capital, net worth and limitations on debt which provide greater flexibility than the restrictions contained in the prior agreement. There were no borrowings autstanding under this agreement at December 31, 1986.

Total working capital increased in 1986 to \$492.2 million. The working capital ratio improved from 1.70:1 at December 31, 1985, to 3.95:1. Shot-term debt fell in 1986 from \$115.4 million to \$2.8 million. Cash flow from other working capital items in 1986 totaled \$42.6 million. Reflecting tight controls, total inventories were reduced by \$7.8 million (8%) in 1986 to \$86.2 million, Increases in payables and accruals contributed \$41.7 million to cash flow. Accrued liabilities increased \$20.4 million (35%) to \$79.3 million, reflecting increases in various (X. mpany reserves. Other liabilities increased \$18 million (22%) to \$98.5 million, reflecting accrued expenses relating to the Company's investment in Union Carbide.

The Company's capital expenditures have increased to \$33.9 million and \$47.2 million in 1986 and 1985, respectively, as compared with \$17.9 million in 1984. Capital



Management's Discussion and Analysis of Financial Condition and Results of Operations (continued)

expenditures in 1987 are expected to exceed \$50 million. The increased capital outlays were part of the \$118 million capital expansion program announced in late 1984 to substantially increase production capacity at several of the Company's domestic and foreign operations. In addition, the Company completed in 1986 a major capacity expansion at its joint-venture manufacturing facility in West Germany, which doubled the capacity of that plant.

Results of Operations

1986 Versus 1985

GAF in 1986 recorded the highest earnings in its history, both in terms of net income and income before extraordinary cradits. The \$80.7 million income before extraordinary credits represented a 49% increase over the previous high of \$54.3 million set in 1985. Income from the Chemicals business and GAF Broadcasting reached record levels, while the Building Materials business recorded its best year since 1978.

Net income for 1986 of \$293.2 million included \$201.4 million (\$5.55 per share) in extraordinary credits, after taxes and expenses, resulting from Union Carbide's January 1986 exchange offer, from Carbide's special third quarter dividend, and from the sale of Carbide shares in November (see Note 2 to Consolidated Financial Statements). In addition, there were \$11.1 million in extraordinary tax credits from the utilization of domestic and foreign operating loss carrylor wards compared with the previous year's \$23.3 million.

Consolidated sales in 1986 of \$753.8 million were 3% higher than 1985 sales of \$732 million, reflecting increased unit sales for most of the Company's product lines, which more than offsat the negative effects of lower domestic selling prices, primarily in residential roofing. For the three-year period ending in 1986, sales increased 7.8%. However, after adjusting consolidated sales for the sale or discontinuance of certain product lines, sales growth was 23.4%.

Consolidated operating income for 1986 of \$113.6 mlllion increased 29% from last year's \$87.9 million. Gross profit margin, which was 29.8% in 1985, improved to Chemicals reported record profits of \$107.8 million in 1986, a 16% increase over the previous high of \$92.6 million for the year 1985. Chemicals sales grew to \$377.5 million from \$364.4 million. This record-breaking performance resulted from several factors: a marked improvement in unit sales in most product lines resulting from strong domestic and international demand; a favorable product mix; lower raw material prices; continued cost improvements primarily due to manufacturing efficiencies; and the improved profitability from international operations reflecting increased market penetration and the continued decline of the U.S. dollar. These factors more than offset the effect of lower selling prices in a year when pricing in some product lines was softer than the corresponding decreases in raw material prices.

The Chemicals business continued to show returns on sales and identifiable assets that are among the highest in the specialty chemicals industry. The return on sales, which was 25.4% in 1985, jumped to 28.6% in 1986. The operating return on assets increased slightly in 1986 to 42.8% from last year's 42.6%, while total Chemicals identifiable assets increased by 16% to \$251.8 million.

The Company's Building Materials business posted a 49% improvement in profits in 1986 to \$30 million from last year's \$20.1 million, its third consecutive year of substantial earnings growth. Sales in 1986 were \$372.1 million, up from \$363.9 million in 1985, as an increase in residential and commercial roofing unit sales was partially offset by the continued erosion of selling prices. The improved profit performance resulted from continued cost control programs, manufacturing efficiencies, lower raw material prices, and a higher unit sales volume, which combined to more than offset the adverse effect of lower selling prices. Building Materials also benefited from a more favorable product raix as a result of new product introductions and increased sales emphasis on Timberline®, the Company's premium roofing product, and Royal Sovereign®, a residential shingle introduced in 1985.

In the last three years, Building Materials has recorded a \$64.5 million turnaround in operating results, from a loss

of \$34.5 million in 1983 to this year's income of \$30 million. This has enabled this business to show increasingly high operating margins and operating returns on assets. The return on sales improved in 1986 to 8.1% from last year's 5.5%, while the return on identifiable assets increased from 10.4% in 1985 to 15.5% in 1986.

Inflation has had a minimal direct impact on the Company's income from operations.

Interest expense increased in 1986 to \$35.4 million from last year's \$19.8 million, reflecting debt service on the Company's senior subordinated notes and debentures which were issued in June 1985 and November 1986. The higher interest expense was more than offset by substantially higher income from the Company's investment programs. Such income increased in 1986 to \$77.9 million from \$22.4 million in 1985, as detailed in Note 2 to Consulidated Financial Statements.

Other Expense-net in 1986 consists primarily of expenses and reserves in connection with products no longer manufactured or sold by the Company, offset by \$8.4 million of equity income from the Company's unconsolidated captive insurance company and the 50% ownership of GAF/Hüls Chemie GmbH.

1987 Feesas 1984

The Company's 1985 income before extraordinary credits of \$54.3 million was 32% higher than the prior year's \$41 millon. Net income increased 37% to \$77.6 million from the previous year's \$56.7 million. Both figures at the

time represented record highs in the Company: history. Income from the Company's operations improved more than 25% in 1985 to \$113.8 million, reflecting a 17% increase in Chemicals profits from \$79 million to \$92.6 million, an 85% increase in Building Materials profits from \$10.9 million to \$20.1 million, and a 58% increase in GAF Broadcasting profits from \$0.7 million to \$1.1 million. Income from operations in 1984 had nearly tripled over 1983 levels to \$90.6 million as a result of 22% higher Chemicals profits and a \$45.4 million turnsround in Building Materials to a profit of \$10.9 million.

Consolidated sales increased slightly in 1985 to \$732 million after an increase of \$31.9 million (4.6%) in 1984 Chemicals sales were up \$7.2 million (2%) in 1985, while Building Materials sales of \$363.9 million were lower by \$6.9 million (2%).

Consolidated operating income for 1985 of \$87.9 million represented an increase of 41% from the prior year's \$62.2 million. Gross profit margin, which was 24.9% in 1984. Increased to 29.8% in 1985,

The Chemicals business reported profits in 1985 of \$92.6 million, a 17% increase over the previous year's \$79 million. Operating margins in 1985 and 1984 were 25.4% and 22.1%, respectively. Chemicals continued to show an increasingly high operating return on assets, with a teturn of 42.6% and 38.8%, respectively, for the years 1985 and 1984.

In two years, Building Materials recorded a \$54.6 million swing in operating results to a profit of \$20.1 million in 1985, up 85% from \$10.9 million in 1984, and from a loss of \$34.5 million in 1983. This performance was achieved through major cost cutting and production efficiency programs. After three consecutive years of losses in 1981-1983, this turnaround enabled Building Materials to show operating returns on assets of 10.4% and 6.9% in 1985 and 1984, respectively.

Corporate operating expenses were reduced by \$3.1 million (16.8%) in 1985, after a decrease of \$4.2 million (18.5%) in 1984 as compared with 1983. These reductions were attributable to programs implemented in 1984 to decentralize operations, reduce corporate staffs, and relocate the Company's corporate headquarters. Interest expense was \$19.8 million in 1985 as compared with \$9.1 million in 1984. The increase in 1985 primarily reflects the debt service on the Company's senior subordinated notes which were issued in 1985, as well as borrowings in connection with the Company's investment programs. The added interest expense was more than offset by \$22.4 million in income on investments, as detailed in Note 2 to Consolidated Financial Statements.



Summary of Selected Financial Data				·	
(Millions of Dollars, Except Per Share Amounts) Year Ended December 31	1988	1985	1984	1983	1982
Sales					
Chemicals Redding Materials	\$377.5	\$364,4	\$357.2	\$323.2	\$294.4
Building Materials Broadcasting	372.1 4.2	363.9 3.7	370.8 3.3	373.2 3.0	328.8
Net Sales	753.8	732.0	731.3	699.4	623.2
Income (Loss) From Operations					
Chemicals	107.8	92.5	79.0	64.6	55.4
Building Materials	30.0	20.1	10.9	(34.5)	(26.3)
Broadcasting	1.3	1.1	0.7	0.5	_
Total	139.1	113.8	90.6	30.6	29.1
Income (Loss) From Continuing Operations Per Common Share—	80.7	54.3	41.0	(29.2)	12.2
Primary	2.22	1.57	1.31	(1,11)	.32
Fully Diluted	2.22	1.50	1.15	(1.11)	.35
Dividends Per Common Share	.10	.10	.05	.025	.25
As of December 31					
Current Assets	\$659.1	\$428.7	\$254.9	\$220.9	\$212.4
Current Liabilities	166.9	251,6	114.2	127.7	123.4
Working Capital	492.2	177.1	140.7	93.2	89.0
Marketable Securities	412.4	202,2	_	_	_
Property, Plant and Equipment—net	208.4	194.1	159.1	164.5	192.4
Total Assets	1,347.1	879.2	452.3	414.3	468.3
Short-term Debt	2.8	115.4	6.5	30.7	7.8
Total Long-term Debt	480.4	259.0	82.8	88.8	157.1
Shareholders' Equity	801.5	298,2	214.0	169.8	181.9
Percent of Debt to Debt Plus Equity	44.5%	55.7%	29.4%	41.3%	47.5%

Market for Common Stock
As of February 27, 1987, the common stock price was \$45.875, and there were 21,166 holders of record of the Company's outstanding common stock. The following information pertains to the Company's common stock, which is traded on the New York Stock Exchange.

Cash D	ividends P	er Common Share*	F	rice Range of	Common Stoci	k*
	1986	1985		186		85
			High	Low	High	Low
First Quarter	\$.025	\$.025	\$37,125	\$23.875	\$15.6875	\$12,125
Second Quarter	.025	.025	37.25	32.00	17,9375	14.75
Third Quarter	.025	.025	36.875	28.375	18.9375	14.8125
Fourth Quarter	.025	.025	44.00	32.75	35.05	18.00

^{*}Reflects a two-for-one stock split in 1986. See Note 6 to Consolidated Financial Statements.



			_		صحت		
(Thousands of Ballers, Except Per Share Amounts) Year Ended December 31	<u>,, </u>	1986		1985		1984	
Net Sales	\$7:	53,774	\$7:	31,962	\$73	31,314	
Costs and Expenses: Cost of Products Sold Selling, General and Administrative		96,184 13,943		13,813 30,206		48,957 20,139	
Total Costs and Expenses	64	10,127	64	4,019	66	59,106	
Operating Income Income on Investments (Note 2) Interest Expense Otha-Expense—net	1	13,647 77,930 35,437) 30,664)	(1	37,943 22,438 19,799) (3,108)		62,208 4,151 (9,143) (2,598)	!
Income Before Income Taxes and Extraordinary Credits Income Taxes (Note 3)		25,476 14,790		37,474 33,178	ŧ	54,618 13,572	
Income Before Extraordinary Credits Extraordinary Credits (Notes 2 & 3)		80,688 12,475		54,296 23,285		41,046 15,656	
Nei Income	\$2	93,161	\$:	77,581	\$ F	56,702	٠.
Earnings Per Common Share (Notes 1 and 6):			•				٠.
Primary:							٠.
Before Extraordinary Credits Extraordinary Credits	\$	2,22 5.86	\$	1.57 .68	\$	1.31 .54	
Net Income	· \$	80.8	\$	2.25	\$	1.85	
Fully Diluted: Before Extraordinary Credits Extraordinary Credits	\$	2.22 5.85	\$	1.50 .65	\$	1.15 .44	
Net Income	\$	8.07	\$	2.15	\$	1.59	
A statement As 100 s tale of tales							

See Notes to Consolidated Financial Statements.

(Thousands of Dollars) December 31	1986	1985
Assets		
Current Assets Cash Short-term investments (Note 2) Accounts receivable, less reserve: 1986—\$4,382; 1985—\$5,142 Inventories (Note 1) Other current assets	\$ 44,623 407,049 112,681 88,190 7,787	\$ 7,862 209,298 109,580 94,007 7,966
Total Corrent Assets Marketable Securities (Note 2) Property, Plant and Equipment—net (Note 1) Other Assets	659,121 412,365 208,396 87,187	428,713 202,229 194,086 54,146
Total Assets	\$1,347,069	\$879,174
Liabilities and Shareholders' Equity		i i i i i i i i i i i i i i i i i i i
Current Liabilities Short-term debt (Note 5) Current maturities of long-term debt (Note 5) Accounts payable Accrued liabilities Income taxes payable	\$ 2,757 335 78,764 79,289 5,505	\$115,380 10,132 57,411 58,924 9,785
Total Current Liabilities Long-term Debt Less Current Maturities (Note 5) Other Liabilities	166,950 480,114 98,507	251,632 248,853 80,536
Shareholdars' Equity (Notes 6 & 7) Preferred stock, \$1 par value per share: authorized 6,000,000 shares Common stock, \$1 par value per share: authorized 100,000,000 shares;	· _	_
issued shares: 1986—36,008,177; 1985—35,755,178 Additional paid-in capital Retained earnings Accumulated translation adjustment Treasury stock, at cost	36,008 44,736 519,207 3,928 (2,381)	35,756 42,958 229,586 (6,135) {4,012}
Shareholders' Equity	601,498	298,153
Total Lishilities and Shareholders' Equity	\$ 1,347,069	\$879,174

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(Thousands of Dollars) Year Ended December 31	1986	1985	1984
Cash and Short-term Investments, January 1	\$217,160	\$ 69,553	\$23,468
Source (Use) of Funds: Income Before Extraordinary Credits Charges not affecting funds:	80,686	54,296	41,046
Depreciation Other—net	17,982 1,814	17,366 5,308	19,397 4,209
Total funds from operations before extraordinary credits	100,402	76,970	64,652
Extraordinary Credits	212,475	23,285	15,656
Total funds from operations	312,957	100,255	80,308
Additions to property, plant and equipment Acquisition of glass fiber facilities Other working capital items*	(33,914) 	(47,161) (9,250) 2,492	(17,900) 24,024
Other	14,813	16,149	(1,824)
Total source before financing and investment activity	336,489	62,465	84,608
Fine acing and investment activity: Increase (decrease) in short-term debt Increases in long-term debt Decreases in long-term debt Investment in marketable securities, net Cash dividends Other	(113,623) 282,569 (71,105) (210,136) (3,540) 3,649	108,919 195,800 (19,571) (202,229) (4,118] 6,321	(24,285) 6,325 (12,407) (4,993) (3,763)
Total source (use) from financing and investment activity	(101,186)	85.122	(38,523)
Increase in cash and short-term investments	235,303	147,607	46,085
Cash and Short-term Investments, December 31	\$452,463	\$217,160	\$69,553

*Other working capital items:	1986	1985	. 1984
Accounts receivable Inventories	\$ (3,101) 7.817	\$(14,441) (10,555)	\$ 3,027 7,299
Other current assets	179	(1,208)	1,759
Accounts payable Accrued liabilities	21,353 20,365	(457) 22,362	11,859 (630)
Income taxes payable	(3.980)	6,791	710
Net source of funds	\$42,633	\$ 2,492	\$24,824

See Notes to Consolidated Financial Statements

housands of Dollars) ear Ended December 31	198	3	1985		1984
1.20 Convertible Preferred Stock:	_	_		_	
Balance, January 1 Converted into common stock: 1985—2,428,625 shares;	s –	- \$	3,175	\$	3,187
1984—9,740 shares	_	_	(3,038)		(12)
Redemption of preferred stock111,033 shares	_	-	(139)		_
Balance, December 31	-	-	-		3,175
ommun Stock, \$1 Par Value Per Share: Bulance, January 1	17.87		14.509		14.468
Effect of 2 for 1 stock split	17,87		1#,009		14,400
Other activity	25	2	3,369	147	43
Balance, December 31	38,00	B. (2.5)	17,878	37.	14,509
dditional Paid in Capital:	A Conno	ं क्षा क्षा • अक्रिकेट	en enn		ee ean
Balance, January 1 Effect of 2 for 1 stock split	60,83 (17,87	100000000000000000000000000000000000000	56. 4 20	lugil√ keringan Kabupatén	55,548
Conversion of 5% convertible subordinated notes.		1	7,167		669
Redemption of preferred stock Excess of proceeds over cost of treasury common stock sold			(2,888) 13		128
Other activity	84		124		75
Balance, December 31	44.73	2011	60.836		65.420
stained Earnings.	To A Vigor				PERSONAL TRANSPORT
Ralafica, January 1 Not incume	229,58 263,16	T 25 (11) (2)	158,123		103,814
cash dividends:			77,581		56,702
Preferred stock (per share: 1985\$ 30; 1984\$1.20)	_	- //	(248)		12,956
Common strek (parsi are 1985 \$ 10 1985 \$ 10 1984 \$ 05)	(3,54	A CONTRACTOR	* (3,370) j		(1,43
Balance, December 31	519.20		229,586		156,123
Balanca, annav	(6.13	51	(10.451)		(6.080
Translation adjustment for the year	10.04		4,316		(4,37)
Halance, December 31	3.92		(6.135)		(10,45)
respury Stock, at cost:		# (A) Y	en i parti		
\$1.20 Convertible preferred stock. Balance, January 1			(1.657)		1932
Repurchase of odd-lot holdings 27,272 shares		— nangara ⇔anangan			(72
Converted into common treasury shares 103,572 shares	MONTH SECTION	- 37 A 774	4,657		
Balance, December 31: 1984 - 103.572 shares	. Ne see week	or suger Tolerumbera or or or or o	Taraharan Januar Makatak 1977 Masa Januar Makatak 1977 Masa	erando es	(1,65,
Common stock:	ee ne		74 440	STATE TO	105
Balance, January 1 Issued under various stock option and stock purchase plans:	(4,01	e)	(4,113)		(199
1986—219,362 shares; 1985—198,424 shares; 1984—163,138 shares	1,B9	-	1,758	أسنيهم	1,062
Other activity	(25	9) ,	(1,657)	e year oo	(4,976
Balance, December 31: 1986—500,145 shares; 1985—453,640 shares; 1984—392,884 shares	(2,38	11	(4.012)		[4,113
hareholders' Equity	\$601.49	•	298.153	48.4	214.006

1. Summary of Significant Accounting Policies Principles of Consolidation

The accounts of all significant subsidiaries of the Company are included in the consolidated financial statements. All significant intercompany transactions and balances have been eliminated. A wholly owned captive insurance subsidiary and the 50% ownership of a foreign chemical manufacturing company are accounted for by the equity method.

Short-term investments and Marketable Securities
Short-term investments and marketable securities are
stated at the lower of cost or market. The determination of
cost in computing realized gains and losses on invest-

ments is based on the specific identification method (see Note 2).

Inventories are stated at the lower of cost (principally average) or market. Inventories at December 31 consist of the following:

Thousands of Dollars	188 6	1985
Finished goods	\$47,315	\$49,748
Work in process	15.640	16,440
Row materials and supplies	23,235	27,619
Total Inventories	\$96,190	\$94,007

Property. Plant and Equipment and Related Depreciation Depreciation is computed principally on the straightline method based on the estimated economic lives of the assets, Certain interest charges are capitalized as part of the cost of property, plant and equipment additions.

The cost of property, plant and equipment additions.

Property, Plant and Equipment at December 31 consist of the following:

Thousands of Dollars	1986	1985
Land and land impovements Buildings and building equipment Machinery and equipment Construction in progress	\$ 16,403 57,814 240,174 16,197	\$ 16,760 53,631 226,387 11,362
Total Less Accumulated Depreciation	329,588 (121,192)	308,140 (114,054)
Property, Plant and Equipment—net	\$208,396	\$194,086

Deferred Income Taxes

Deferred income taxes arise from reporting certain income and expense items in the financial statements in periods different from those in which such amounts are reported for income tax purposes.

Investment Tax Credits

The Company accounts for Investment tax credits as a reduction of the provision for United States income tax (the flow-through method).

Research and Development

Research and development expenses are charged to operations as incurred and amounted to \$11.4 million in 1986, \$10.4 million in 1985 and \$8.7 million in 1984.

Earnings Per Common Share

Primary earnings per common share are based on the weighted average number of common and common equivalent shares outstanding during each year after giving appropriate effect for preferred stock dividends. Weighted average shares for computing primary earnings per share were (in thousands) 36,283 for 1986, 34,342 for 1985 and 29,020 for 1984.

Fully diluted earnings per share are based on the weighted average number of common and common equivalent shares outstanding and the assumed conversion of convertible securities outstanding after appropriate adjustment for interest or convertible notes. Weighted average shares for computing fully diluted earnings per share were (in thousands) 36,318 for 1986, 36,094 for 1985 and 35,986 for 1984.

2. Short-term Investments and Marketable Securities At December 31, 1965, the Company held approximately a 10% interest in Union Carbide Corporation at a total cost of \$405.4 million, including \$60 million in costs relating to the Company's withdrawn tender offer. In January 1986, pursuant to Carbide's exchange offer, the Company received \$70 million in cash and \$227.5 million in Carbide bonds in exchange for 3.5 million of the Carbide shares it owned. After the exchange, the Company's ownership percentage of Carbide remained nearly the same. In November 1986, approximately one half of the remaining Carbide shares held by the Company were sold with the Company retaining a 4.8% interest in Carbide as of December 31, 1986.

Extraordinary credits for the year 1986 include a net gain of \$201.4 million, after taxes and expenses, resulting from the Carbide exchange offer in January 1986, from Carbide's special third querter dividend, and from the sale of Carbide shares in November.

As of December 31, 1986, the Company held investments in Borg-Warner Corporation, CBI Industries Inc. and Union Carbide with a total cost basis of \$412.4 million. These investments are included in Marketable Securities and have an aggregate market value of \$455.9 million as of

December 31, 1986.

Notes to Consolidated Financial Statements

Income on Investments consists of	the follov	ring:	
Millions of Dollars Year encled December 31	1986	1985	1984
Net realized gains, not of unrealized 'asses Dividends, interest income and other	\$42.4 35.5	\$ 8.9 13.5	\$ —
Income on Investments	\$77.9	\$22.4	\$4.2

The Company received net proceeds from the sale of Carbide bonds in 1986 of approximately \$245 million, resulting in a net realized gain of \$17.5 million.

At December 31, 1986, the aggregate cost of the Company's short-term investments was \$411.9 million, while the aggregate market value was \$407.8 million.

3. Income Taxes Income Taxes consist of t	he following:	····	•
Thousands of Pollars Year ended December 31	1986	1985	198
Federal	\$28,321	\$19,684	\$ 4,93
Foreign	12,521	7,862	5,83
State State	3,948	5,612	2,80
Income Tayes	\$44.790	\$33,178	\$13.57

The differences between the income tax provisions computed by applying the statutory federal income tax rate to pre-tax income and the actual tax provisions are as follows:

Thousands of Dollars Year ended December 31	1986	1985	1984
Statutory Provisions	\$57,719	\$40,238	\$25,125
Adjustments			
Dividend received deductions	[7,267]	[1,630]	_
Capital gains differential	(8,926)	(1,987)	_
Investment tax credits	(2,625)	(3,217)	(10,700)
Impact of foreign operations	2,042	(1,581)	11,5721
State and local taxes	2,132	3.031	1,515
Other	1,715	(1.656)	(795)
Income Taxes	\$44,790	\$33,178	\$13,572

As of December 31, 1986, provision had not been made for United States income taxes on approximately \$29 million of unremitted earnings of consolidated foreign subsidiaries and the Company's 50% owned joint venture, because any United States taxes payable on foreign earnings which may be remitted in the future are expected to be substantially reduced by foreign tax credits.

Extraordinary credits for 1986, 1985 and 1984 include \$1,333,006, \$1,576,000 and \$1,830,000, respectively, representing the income tax benefit from the utilization of forting of practical control of the income tax benefits of \$16,764,000, \$21,709,000 and \$5,479,000 from the utilization of federal and state operating loss carryforwards. The 1986 extraordinary credits also include income tax benefits of \$14,462,000 related to the Company's partial disposition of its investment in Union Carbide Corporation (see Note 2).

4. Renefit Plans

The GAF Capital Accumulation Plan is a defined contribution plan for eligible salaried employees. Company contributions consist of a basic contribution of three percent of the compensation of participants for the plan year together with matching contributions, up to an additional four percent as specified in the plan, for those participants who have elected to make voluntary contributions to the plan. Each participant is fully vested at all times in the balance in each of his or her accounts in the plan. The aggregate contributions made by the Company to the plan and charged to operations in 1986, 1985 and 1984 were \$3,385,000, \$3,126,000 and \$2,898,000, respectively.

The Company has a deferred compensation plan for the benefit of key employees. The benefit payable under the plan, which accrues in accordance with a ten-year schedule, consists of an annual payment commencing at age 65 equal to 25% of a covered employee's last full year's salary. If a covered employee dies while employed by the Company, a death benefit of 36% of the employee's annual income at the date of death is payable to the employee's beneficiary for a term of 15 years. Employees who participate in this plan are not entitled to have employer contributions made to their accounts under the GAF Capital Accumulation Plan. The expense charged to operations in 1986 for such future obligations amounted to \$995,000.

The retirement plans for hourly employees and Taxas City facility employees are noncontributory defined benefit plans. Company policy is to fund accrued pension expense. Pension expense charged to operations was \$870,000 in 1986, \$559,000 in 1985 and \$289,000 in 1984. A comparison of the accumulated plan benefits and plan net assets for these plans, after giving effect to the spin-off/termination as discussed in the following paragraph, is presented below:

Thousands of Dollars	1986	1985
Actuarial present value of accumulated plan benefits:		
Vested Nonvested	\$2,884 926	\$1,877 502
Total	\$3,810	\$2,379
Plan assets available for benefits	\$1,532	\$1,216
Assumed rate of return Plan valuation date	8%. 1/1/86	8% 1/1/85

In 1984, the Company announced a proposed spin-off/ termination involving its Retirement Plan for Hourly Employees, pursuant to which the Company purchased an annuity contract approximating \$69.6 million covering the benefits accrued to September 1, 1984 for participants of the plan. Assets were sufficient to provide for the accrued benefits of all hourly participants. Pursuant to governmental regulations, excess assets were then "spun-off" to a new plan for inactive members. The inactive plan was then terminated. Following government approvals of the spin-off/ termination, excess assets of \$16.1 million reverted to the Company in November 1985. An additional \$3.8 million was received and established as a reserve pending final resolution of any plan liabilities. The Company will contribute to the plan in future years for active employees to meet liabilities as they accuse.

In addition to providing pension benefits, the Company and its subsidiaries provide certain health care and life insurance benefits for retired employees. Substantially all of the Company's employees, including employees in foreign countries, may become eligible for those benefits if they reach normal retirment age while working for the Company. The cost of retiree health care and life insurance benefits (\$3.0 million, \$3.2 million and \$3.7 million in 1986, 1985 and 1984, respectively) is recognized as expense as claims are incurred.

As part of the 1977 and 1980 discontinuance programs, the Company provided health and life insurance coverage for certain retired employees of discontinued businesses. The balance of the liability for such future obligations at December 31, 1988 was \$14.7 million.

5. Delt and Dividend Restrict Information regarding short		is as follov	vs:
Thousands of Dollars	1986	1985	1984
As of December 31; Balance outstanding Weighted average interest rate	\$ 2,757 5.2%	\$115,380 8.7%	\$ 5,461 8%
For the Year: Average month-end shurt-term dobt outstanding	\$ 95,828	\$ 51,757	\$17,915
Maximum month-end short-term debt outstanding Welghted average month-end	\$185,559	\$118.915	\$45.789
interest rate	7%	8.6%	11.4%

Of the total short-term debt outstanding at December 31, 1985, \$99.4 million represented margin loans.

At December 31, 1986, the Company had unused shortterm lines of credit aggregating approximately \$87.7 million (in addition to the revolving credit facility discussed below). The short-term lines of credit are maintained with banks on terms which expire on various dates, but are generally tenewable. Borrowings generally bear interest at or near the prime commercial lending rate.

Long-term debt at December 31, 1986 follows:	and 1985 t	vas as
Thousands of Dollars	1986	1985
91/1% senior notes due March 31, 1987	<u> </u>	\$ 10,600
81/4% sanior notes due January 15, 1992	_	18,700
Revolving credit agreement	_	27,000
Industrial revenue bonds with various interest		
rates and maturity dates to 2012. Certain		
assets are pledged as collateral thereto.	37,428	39,926
Obligation on mortgaged property	38,125	· -
Obligation under capital lease	· -	9,525
*1 1/2% senior subordinated notes day		
June 15, 1995	150,000	150,000
10%% senior subordinated notes due		
November 1, 1984	155,000	
10%% senior subcrdinated debentures due		
November 1, 2001	105,600	_
Other	454	5,234
Less unamortized discount	(5.556)	
Total	480,449	258,985
Less current maturities	[335]	(10,132)
Long-term Debt Less Current Maturities	\$480,114	\$248,853

On June 30, 1986, the Company entered into a \$100 million three-year revolving credit facility with a consortium of ten banks, replacing the Company's previous \$75 million revolving credit agreement, which had been increased from \$50 million in May 1986. Interest on borrowings is, at the option of the Company, at the prime rate, a rate based on the London Interbank Offer Rate, or a rate based on the Certificate of Deposit Rate. Under the agreement, a commitment fee of %% per annum is charged on the daily average unused portion of the commitments. The agreement includes certain restrictions on dividends and provisions for the maintenance of minimum working capital, net worth and limitations on debt. As of December 31, 1986, \$138.4 million of retained earnings were available under this agreement for cash dividends and certain other special payments.

The Company in June 1985 issued \$150 million of 11%% senior subordinated notes due June 15, 1995. The notes will be redeemable at the option of the Company on and after June 15, 1992.

In October 1986, the Company placed a \$38.1 million mortgage on the Company's headquarters property. The mortgage is due on October 8, 1996, and interest on the funds is at a rate based on the London Interbank Offer Rate.

In November 1986, the Company issued \$155 million of 10%% senior subordinated notes due 1694 and \$105 million of 10%% senior subordinated debentures due 2001. The notes will be redeemable at any time, at the option of the Company, after October 31, 1991, while the debentures will be redeemable at any time, at the option of the Company, after October 31, 1995. Annual sinking fund pay-

Notes to Consolidated Financial Statements

ments of 13.75% of the principal amount of the debentures originally issued, commencing November 1, 1997, are calcuiated to retire 75% of the principal amount of the debentures prior to malurity. The securities will be subordinated to all existing and future senior indebtedness of the Company.

The aggregate maturities of long-term debt for the next five years are as follows:

Thousands of Dallars	
1987	\$ 33
1988	34:
1989	1.36
1998	4
1991	<u>-</u>

6. Capital Stock

The Company declared a two-for-one stock split effective May 8, 1986. All references in the Financial Statements to the number of common shares, earnings and dividend amounts per share, stock option data and other per share amounts have been restated to give effect to the stock split.

The Company in 1985 called for redemption all of its outstanding shares of \$1.20 convertible preferred stock. Shareholders converted 2,324,553 shares of preferred stock into 5,810,288 shares of common stock, and the Company redeemed 111,033 shares of preferred stock at a price of \$27.50 plus accrued dividends. In addition, the Company converted all 103,672 shares of its \$1.20 convertible preferred stock held in treasury into 259,180 shares of common stock to be held in treasury.

At December 31, 1986, there were 3,612,514 shares of common stock reserved for issuance under the Company's stock option and stock purchase plans.

7. Senck Option and Stuck Purchase Plans

The Company's 1984 Stock Option Plan provides for the greating of incentive and nonqualified stock options to key employees of the Company and its subsidiaries to purchase common stock of the Company at not less than 100% of the fair market value at the date of grant. Under the terms of the plan, options for 1,600,000 shares of common stock may be granted from time to time until April 30, 1989. The term of each option is five years and sixty days. Options may not be exercised during the first year after the date of grant, but thereafter, options become exercisable as to 20% of the shares subject thereto on each of the first through the lifth anniversaries of the date of grant.

The Company's 1975 nonqualified stock option plan provided for the granting of 1,600,000 options to key employees to purchase common stock of the Company at not less than 100% of the fair market value at the date of grant. Options granted through April 30, 1984 were exercleable one year after grant and expire after 10 years. Options granted after April 30, 1984 are subject to the same terms and conditions as options issued under the 1984 Stock Option Plan, The 1975 plan terminated in 1985, and no additional options have been granted after that date

The plans provide for limited stock appreciation rights permitting the option holder to surrender exercisable options in the event of a tender or exchange offer for the Company's common stock made by someone other than the Company.

The following is a summary of certain information per-

taining to the 1975 and 19 Shares	384 stock opt 1986	ion plans: 1985	1964
Outstanding January 1	1,344,200	1.351.600	508.800
Granted	277,600	184,010	260,800
Exercised	(109,068)	[116,370]	(104,000)
Terminated	(87,970)	(75,040)	(14,000)
Outstanding December 31	1,424,762	1,344,200	1,351.600
At December 31			
Exercisable	547,290	461.790	403,800
Available for grant	596,480	787,190	900,400
Option Price Range Per Share			
Cuistanding	S 4.81-	\$ 4.81-	\$ 4.81-
	\$38.50	\$23.13	\$11.88
Exercised	\$ 4.81-	\$ 4.81-	\$ 4.81-
	\$23.13	\$11.88	\$ 7.14

The Company's 1984 Employee Stock Purchase Plan provides for grants of options to purchase 1,200,000 shares of common stock on a nondiscriminatory basis to all eligible employees of the Company and its subsidiaries. No options to purchase shares of common stock under the plan may be granted after April 30, 1989. The price at which shares may be purchased is the lesser of (i) 85% of the fair market value on the date of grant or (ii) 85% of the fair market value on the date of purchase. As of December 31, 1986, 178,508 shares of common stock had been issued under the plan.

Under the provisions of the Company's 1969 Restricted and Unrestricted Stock Purchase Plan, 1,300,000 shares of common stock were authorized for sale to key employees. The plan currently provides that restricted and unrestricted shares may be sold at prices which are not less than 50% and 80%, respectively, of the closing market price preceding the date of grant. To date, only restricted shares have been offered for sale. Under certain conditions, the Company has the right to repurchese restricted shares of common stock at the original seiling price. At December 31, 1986, there were 569,780 shares available for sale under this stock purchase plan.

			· .
8, Business Segments Information			
Millians of Dollars Year ended December 31	1986	1985	1984
Sales Chemicals* Building Materials Broadcasting	\$ 377.5 372.1 4.2	\$364.4 363.9 3,7	\$357.5 370,8 3,5
Consolidated Not Sales	\$ 753.8	\$732.D	\$731.
Income From Operations Chemicals** Building Malerials Bradcasting	\$ 107.8 30.0 1.3	\$ 92.6 20.1 1.1	\$ 79.0 10.9 0.3
Total	139.1	113,8	90,8
Corporate: Operating Expenses Interest Expense Other Income (Expense)—net	(18.1) (35.4) 37.9	(15.4) (19; 6.9	(18.5 (9.1 (6.4
Net Corporate Expenses	(13.6)	(26.3)	(35.0
Income Before Income Taxes end Extraordinary Credits	\$ 125,5	\$ 87,5	\$ 54.6
Identifiable Assets Chemicals** Building Materials Corporate and other	\$ 251.8 194.0 901.3	\$217,3 194.2 467.7	\$203.8 158.1 89.1
Total Assets	\$1,347.1	\$879.2	\$452.
Additions to Property, Plant and Equipment Chemicals Building Materials Corporate and other	\$ 12.4 20.3 0.2	\$ 21.5 24.4 1.3	\$ 9.0 8.0 0.3
Total	\$ 33.9	\$ 47.2	\$ 17.9
De preciation Chamicals Building Materials Corporate and other	\$ 9.6 7.5 0.9	\$ 10.3 6.0 1.1	\$ 11. 7.0 1.3
Talei	\$ 18.0	\$ 17.4	\$ 19.4

[&]quot;Chamicals sales are not of intersegment sales of \$39.1 million. \$27.4 million and \$23.2 million for 1986, 1985 and 1384, respectively. Intersegment sales are recorded at the same prices charged to uneffiliated customers.

^{**}Chemicals income and identifiable assets include the Company's 50% equity in the me and assets of GAF#461s Chemic GmbH, a joint venture between (AF Corporation and Hels A.G., which operates a chemical manufacturing po

Notes to Consolidated Financial Statements

9. Geographic Information					
Millions of Dollars Year ended December 31		1986		1985	 1984
Domestic Operations: Net Salos*	. \$	838.8	50	842.9	\$ 649.9
Operating Income Other Income (Expense)	ş	9D,5 8.8	S	73.3 (7.3)	\$ 49.2 (14.9)
Income Before Income Taxes and Extraordinary Credits	s	99.3	ş	66.0	\$ 34.3
Identifiable Assets	\$1	,255.1	Şŧ	82ñ.fi	\$ 404.B
Foreign Operations; Net Sales**	s	115.0	5	89.1	\$ 81.4
Operating Income Other Income (Expanse)***	\$	23.2 3.0	\$	14.6 6.9	\$ 13.D 7.3
Income Before Income Taxes and Extraordinary Credits	\$	26.2	\$	21.5	\$ 20,3
Identifiable Assets***	\$	92.0	\$	52.6	\$ 47.5

- *Domestic sales are net of transfers between geographic areas of \$45,6 million, \$40.8 million and \$34.9 million, respectively.
- **Foreign sales are not of transfers between prographic areas of \$7.7 million, \$10.4 million and \$7.3 million, respectively.
- ***Feroign Operations income and identifiable assets include the Company's 50% equity in the Income and assets of GAP/Hüls Chemin GmbH.

10. Commitments and Contingencies

The Company has operating leases for transportation and data processing equipment and for various buildings. Future minimum lease payments for properties which are held under long-term noncancelable leases as of December 31, 1986 are as follows:

Thousands of Pollars Minimum Payments

Total minimum payments	\$10,336
Lister Years	51
1991	544
1990	1,044
1989	1,364
1988	1,96.5
1987	\$ 5,368

At December 31, 1986, there were various lawsuits pending against the Company relating to matters arising from its business, including approximately 27,000 involving budily injury claims relating to the exposure to asbestos or asbestos-containing products no longer sold by the Company. The Company is also named as a defendant in approximately 70 asbestos-in-building lawsuits by school districts and other owners of buildings seeking to recover damages including the cost of removal of asbestos insulation and other asbestos products.

The Company, in January 1987, resolved a long-standing dispute with five insurance carriers over the nature and extent of insurance coverage for asbestos-related health claims filed against the Company. In connection with these settlements, the Company has joined the Wellington Asbestos Claims Facility (the "Facility"), an organization of insurance companies and asbestos producers formed in 1985 to poordinate the administration of asbestos claims.

The Facility will assume defense and settlements of all such pending, threatened and future claims against the Company. The Company's share of the cost of settlements, judgments and legal expenses with respect to such claims will be borne by the Facility, which will be reimbursed by the Company's insurers on the basis of the amounts provided by the Facility's agreement with the Company and to the extent of the coverage afforded the Company under its policies of insurance and settlement agreements. The Company also entered into a separate agreement with another of its Insurers, with which it had previously settled its insurance coverage claim, so as to conform that arrangement with the aforesaid settlements and the Company's entry into the Facility.

In the opinion of management, the ultimate disposition of the lawsuits pending against the Company, including the asbestos related claims, will not have a material adverse effect on the Company's consolidated financial position.

11. Supplementary Financial Information

Thousands of Dollars Year ended December 31	1986	1985	1984
Maintenance and repairs Rentals—operating leases	\$45,774	\$41.088	\$41,796
	6,789	8,298	7,746



101 Eisenhower Parkway Roseland, New Jersey 07068

To the Shareholders and Board of Directors of GAF Corporation:

We have examined the consolidated balance sheets of GAF Corporation (a Delaware corporation) and subsidiaries as of December 31, 1986 and 1985, and the related consolidated statements of income, changes in financial position and shareholders' equity for each of the three years in the period ended December 31, 1986. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of CAF Corporation and subsidiaries as of December 31, 1986 and 1985, and the results of their operations and the changes in their financial position for each of the three years in the period ended Dacember 31, 1986, in conformity with generally accepted accounting principles applied on a consistent basis.

Orthur Anderson & Co. February 9, 1987

Supplementary Data (Unaudited)

Quarterly Financial Data (Unaudi	ted)							
Millians of Dollars Except Per Share Amor	ints First	1986 by Second	Quarter Third	Fourth	First	1985 by Second	Quarter Third	Fourt
Net Sales Cost of Products Sold	\$176.0 122.1	\$198.3 130.6	\$197,2 127.1	\$ 92.3 116,4	\$175.9 127.1	\$188.1 130.2	\$193.8 135.1	\$174.2 121.4
Gross Profit	\$ 53.9	\$ 67 <i>3</i>	\$ 70.1	\$ 65.9	\$ 48.B	\$ 57.9	\$ 58.7	\$ 52.6
Income Before Income Taxes and Extraordinary Credits Income Taxes	\$ 23.3 8.3	\$ 35.5 13.3	\$ 37.5 13.0	\$ 29.2 10.2	\$ 19.5 8.4	\$ 25.2 9.8	\$ 24.9 9.3	\$ 17.5 5.7
Income Before Extraordinary Credits Extraordinary Credits	15.0 85.8	22.2 3.7	24.5 92.5	19.0 30.5	11,1 6.4	15.4 8.4	15.6 7.3	12.5 1.5
Not facome	\$100.8	\$ 25.9	\$117,0	\$ 49.5	\$ 17.5	\$ 23.8	\$ 22.9	\$ 13.4
Earnings Per Common Share*								
Primary: Before Extraordinary Credits Extraordinary Credits	\$.41 2.37	\$.61 .10	\$.67 2.55	\$.52 .84	\$.36 ,21	5 ,44 ,24	\$.43 ,21	\$.34 .02
Net income	\$ 2.78	\$.71	3 3.22	\$ 1.35	\$.57	\$,6.	\$.64	\$.37
Fully Diluted: Before Extraordinary Credits Extraordinary Credits	\$.41 2.37	\$.61 .10	\$.07 2.55	\$.52 .84	\$,31 81,	\$.44 .24	\$.43 .21	\$.34 .03
Net Income	\$ 2.78	\$.71	\$ 3.22	\$ 1.36	\$.49	\$.68	\$,64	\$.33

^{*}In accordance with the provisions of APB Opinion No. 15, narrings per share are calculated separately for each quarter and the full year. Accordingly, annual earnings per share will not necessarily equal the total of the interim periods.

Board of Directors and Officers

Board of Directors

Daniel T. Carroll Chairman of the Board and President, The Carroll Group, inc. (management consulting)

Carl R. Eckardt Executive Vice President Corporate Development. GAF Corporation

Dr. Jacob E. Goldman Chairman of the Board, Cauzin Systems Inc. (manufacturer of personal computer accessories)

Samuel J. Heyman Chairman of the Board and Chief Executive Officer, GAF Corporation

Sanford Kaplan Private investor and consultant William P. Lyons President, William P. Lyons & Co., Inc. (investment banking and financial consulting)

Scott A. Rogers, jr. Consultant

Edward E. Shea Partner, Windels, Marx, Davies & Ives

James T. Sherwin Vice Chairman and Chief Administrative Officer, GAF Corporation

William Spier Private investor

joseph D. Tydings Partner, Finley, Kumble, Wagner, Heine, Underberg, Manley & Casey Corporate Officers

Samuel J. Heyman Chairman of the Board and Chief Executive Officer

James T. Sherwin Vice Chuirman and Chief Administrative Officer

Carl P. Rekardt Executive Vice President, Corporate Development

John A. Brennan Executive Vice President and President, GAF Building Materials Corporation

Heinn F. Tomfohrde, III Executive Vice President and President. GAF Chemicals Corporation Joel A. Asen Senior Vice President, Treasury and Business Development

Irving Kagan Senior Vice President, General Counsel, and Secretary

Raymond J. Lacroix Senior Vice President and Chief Financial Officer

Matthew L. Gooby Vice President, Management Information Systems

Bernard L. Kapell Vice President, Taxation

Frank E. Sheeder, Jr. Vice President, International

James J. Strupp Vice President, Human Resources

Chemicals Corporation

Heinn F. Tomfohrde, III President

William J. Burlant Vice President, Research & Development

T.H. King Vice President, Mineral Products

Abraham Lindenauer Vice President, Materials Management & Technical Services Richard B. Olsen Vice President, Pinance

Frank E. Sheeder, Jr. Vice President, International

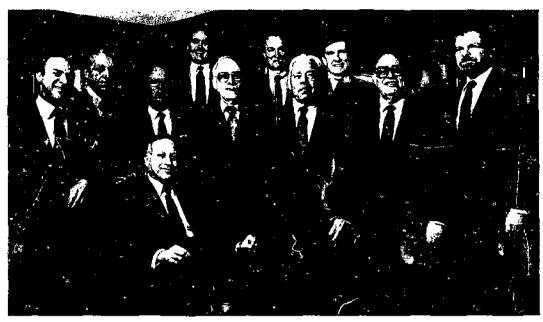
Raymond W. Smith Vice President, Acetylenic Derivatives

Richard L. Toma Vice President, Manufacturing

Gerald R. Whitmore Vice President, Human Resources



Heinn E Tomfohrde, III



Samuel J. Heyman (sealed), Chairman and Chief Executive Officer, and the GAF Board of Directors (left to right); James T. Sherwin, Edward E. Shen, Carl R. Eckardt, William P. Lyons, Sanford Koplan, Daniel T. Carroll, Scott A. Rogers, Jr., Joseph D. Tydings, Dr. Jocob E. Goldman, and William Spier.

John A. Brennan President

Salvatore C. Bellini Vice President, Finance

Robert A. Goodman Vice President, Human Resources

William C. Schwingen Vice Posident, Commercial Development and Research & Development

Thomas J. Zickell Vice President, Manufacturing



John A. Brennan

Matthew Field Vice President and General Manager



Matthew Field



Corporate Offices 1361 Alps Road Wayne, New Jersey 07470

GAF Corporation's plants, research laboratories, and seles offices are located throughout the United States.

Chemicals

Manufacturing Alabama-Huntsville Kentucky-Calvert City Missouri-Annapolis New Jersey-Bound Brook New Jersey-Linden Pennsylvania-Blue Ridge Summit South Carolina-Spartanburg Texas-Seadrift Texas-Texas City Wisconsin-Pembine

California-Irvine Illinois-Lombard New Jersey-Linden North Carolina-Charlotte Ohio-Cincinnati Pennsylvania-King of Prussia Texas-Arlington

Research & Development Maryland-Hagerstown New Jersey-Wayne Bapidous Materials

Section 1985

Alabama Mobile

California-Fontana California-Irwindale Florida-Tampa Georgia-Savannah Indiana-Mount Vernon Maryland-Baltimore Massachusetts-Millis Minnesota-Minneapolis Pennsylvania-Erie South Carolina-Chester Tennessee-Nashville Texas-Dallas

Sales Alabama-Mobile California-Fontana Florida-Tampa Georgia-Savannah Indiana-Mount Vernon Massachusetts-Millis Minnesota-Minneapolis New Jersey-South Bound Brook Pennsylvania-Erie Texas-Dallas

Research & Dovelopment New Jersey-Wayne Tennessee-Nashville

International GAF Corporation's major marketing and service facilities are located throughout the world.

Lurapean Region Great Britain, Esher-Headquarters Austria-Vienne Belgium-Sint Niklaas France-Paris

Great Britain-Manchester Italy-Milan Netherlands-Schiedam Spain-Barcelona Sweden-Johanneshov (headquarters for Norden countries) Switzerland-Zug West Germany-Frechen

Western Hemisphere Region New Jersey, Wayne-Headquarters Brazil São Paulo Canada-Mississauga, Ontario Canada-Ville St. Laurent, Quebec Mexico-Mexico City Puerto Rico-Carolina

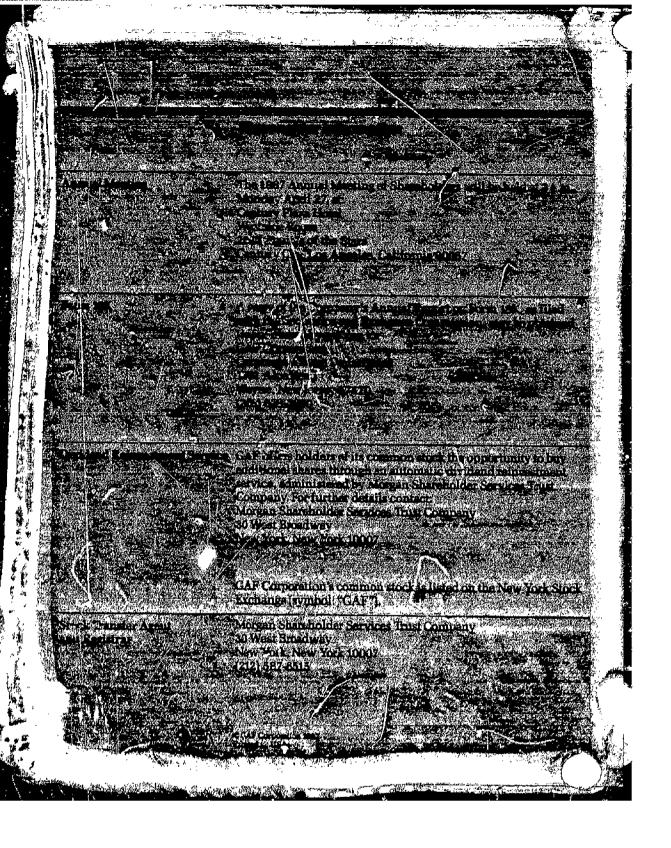
Asia-Pacific Region Republic of Singapore, Singapore-Headquarters Australia-Sydney Australia Melbourne Japan-Tokyo New Zealand-Auckland Republic of Singapore-Singapore

GAY Repadrasting Company, Inc.

New York, New York Subsidiary:

GAF Insurance, Ltd. Hamilton, Bermuda

Affiliate: GAF/Hüls Chemie GmbH Marl, West Germany









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